AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for detecting an initiation of a burst in a digital received signal ***r(v)*** during use of a digital reference signal ***p(v)***, said process comprising the following procedural steps:

executing a correlation by formation of a cost function $L(v_o)$ with a correlation function within a correlation interval dependent upon a time delay of the received signal ***r(v)*** relative to a bit offset or a chip offset v_o, which is characterized by the reference signal ***p(v)***, whereby addends of the correlation function were multiplied by a frequency offset correction factor, namely $e^{-j2\pi\Delta\tilde{f}v}$, the frequency offset correction factor being characterized by a frequency offset $\Delta\tilde{f}$ of the received signal ***r(v)*** relative to the reference signal ***p(v)***; and

seeking a maximum ***Max(L)*** of the cost function $L(v_o)$ dependent upon the bit offset or the chip offset v_o and upon the frequency offset $\Delta\tilde{f}$ whereby the maximum ***Max(L)***, following a carrying out of a Fourier Transform is sought in a frequency space.

2. (Original) The process of claim 1, wherein the cost function $L(v_o)$ is formed corresponding to the equation: $L(v_o, \Delta\tilde{f}) = \left| \sum_{v=0}^{N-1} r(v - v_0) p^*(v) \bullet e^{-j2\pi\Delta\tilde{f}v} \right|$

wherein:

$r(v)$	is the received signal
v	is a bit index or a chip index
$p^*(v)$	is a conjugate complex reference signal
v_o	is the bit offset or the chip offset
$\Delta\tilde{f}$	is the frequency offset, and
N	is a length of the correlation interval.

3. (Original) The process of claim 2, wherein the maximum ***Max(L)*** of the cost function $L(v_o)$, by the determination of the maximum of a power spectrum, is sought in the frequency space, said power spectrum being:

$$\left|\tilde{R}(f,v_0)\right| = \left|\sum_{v=0}^{N_{FFT}-1} r(v-v_0)p^*(v) \bullet e^{-j\frac{2\pi}{N_{FFT}} f \bullet v}\right|$$

wherein

N_{FFT} is a length of a discrete Fourier Transform, and

f is an estimated frequency offset $\Delta\tilde{f}$ multiplied by N_{FFT}.

4. (Original) The process of claim 1, wherein the correlation is executed in a plurality of time related offset correlation intervals $K \cdot N$ and the thereby obtained correlation results $R_{r,p}(v_0,k)$ are incoherently determined.

5. (Original) The process of claim 1, wherein before the correlation an instantaneous power $P(v)$ of the received signal $r(v)$ is determined and the correlation is only executed in one range, wherein the instantaneous power $P(v)$ is greater than a power threshold $TH \bullet MIN\{P(v)\}$.

6. (Currently Amended) The process of claim 5, wherein the instantaneous power $P(v)$ is determined by the equation:

$$P(v) = \lambda \bullet P(v-1) + (1-\lambda) \bullet |r(v)|^2$$

wherein:

$r(v)$ is the received signal

v is ~~a~~the bit index or ~~a~~the chip index

λ is a constant greater than 0 and less than 1.

7. (Original) A digital memory storage medium with electronically based read-out control systems, said digital memory storage medium being adapted to coact with a programmable computer or a digital processor to conduct the process of claim 1.

Claims 8-10 (Canceled).